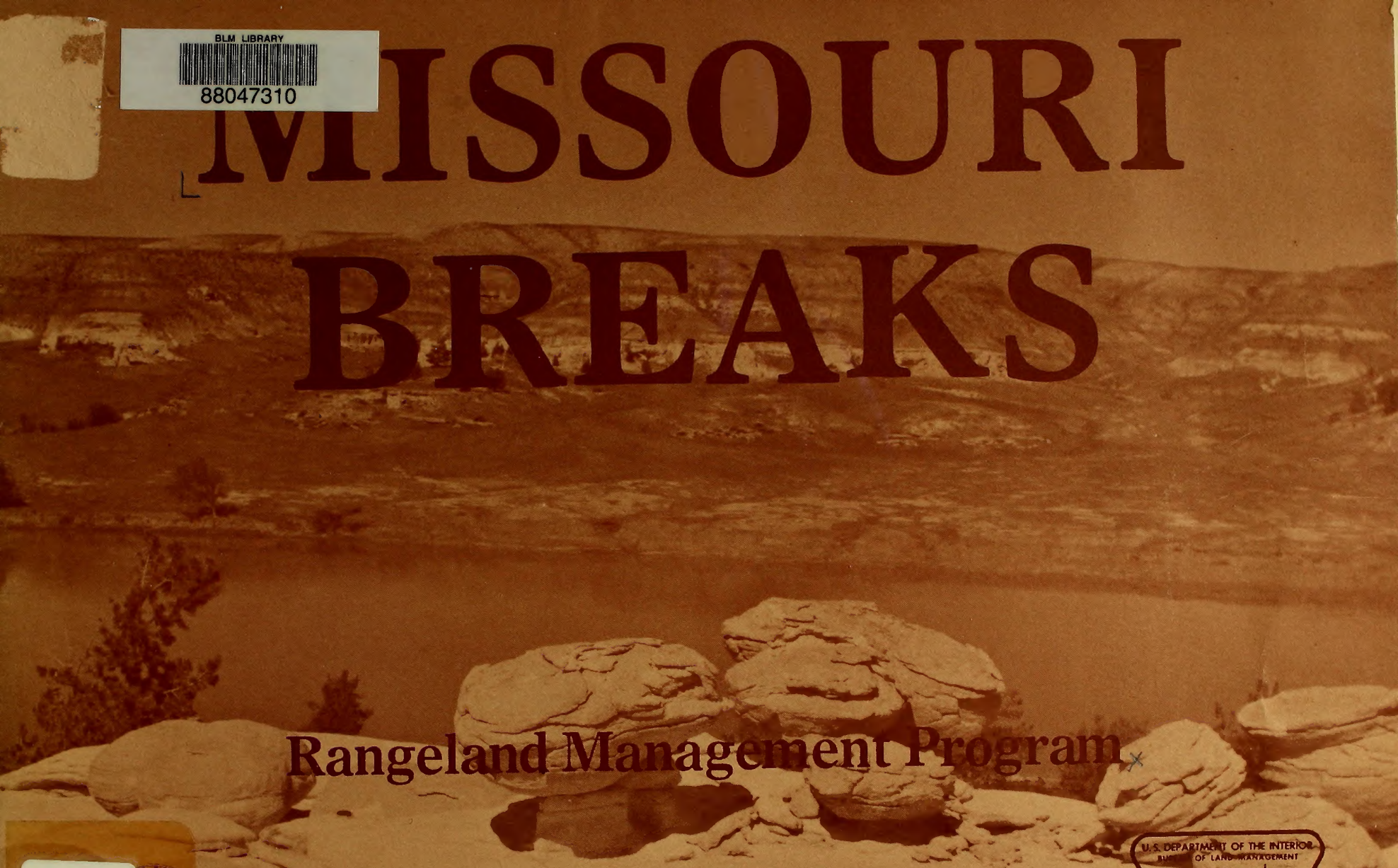
BLM LIBRARY
88047310

MISSOURI BREAKS

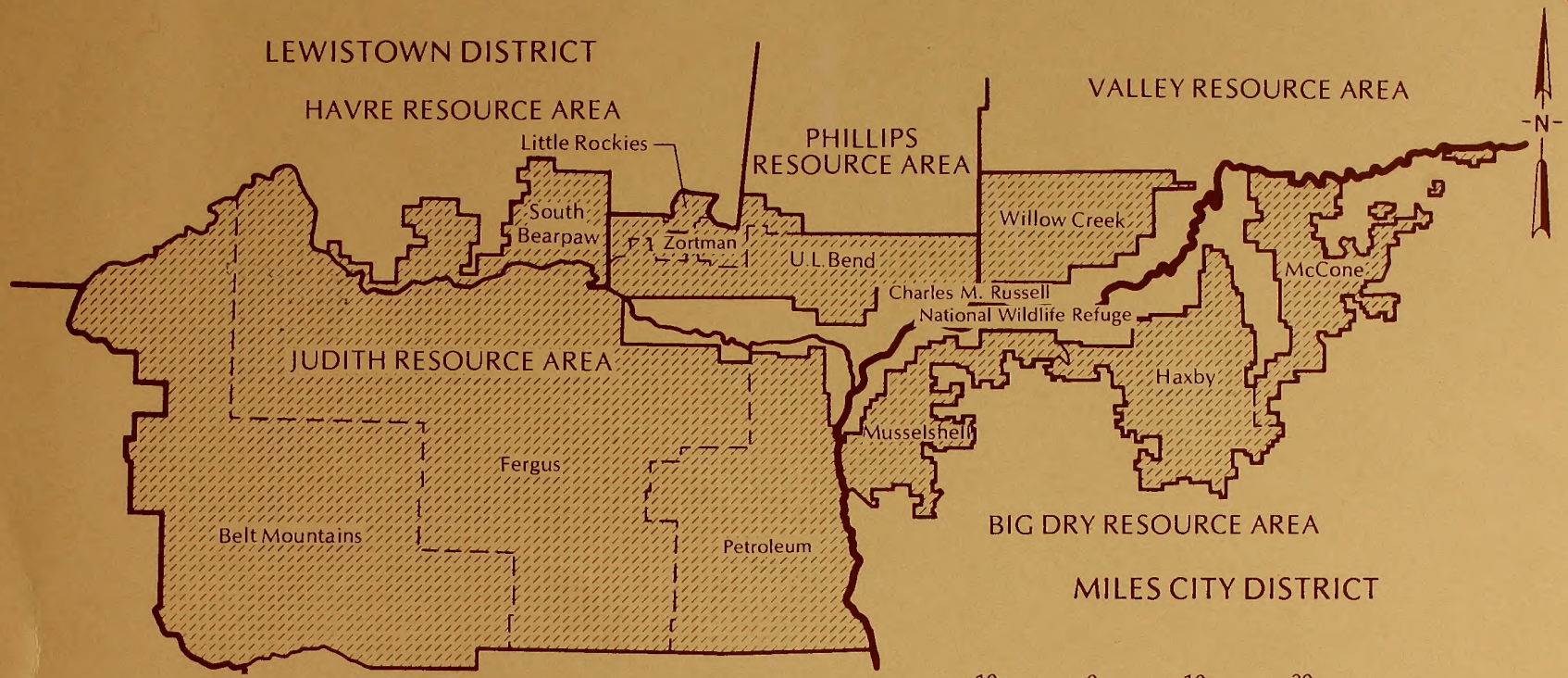


Rangeland Management Program

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MONTANA STATE OFFICE
NOVEMBER 1979

SF
85.35
.M9
M577
1979

Bureau of Land Management
Library
Denver Service Center



MISSOURI BREAKS ENVIRONMENTAL STATEMENT AREA

BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225

ID 88047318

SF
85.35
.M9
M577
1979

SUMMARY

The Bureau of Land Management (BLM) intends to implement an improved rangeland management program in the "Missouri Breaks" area of Central Montana. The program will occur over a four year period from 1980 through 1984 and will cost approximately $6.7 million. The program's benefits include better watershed conditions through an increase in vegetation cover and litter. Sediment yield and erosion will consequently be reduced. There will be an increase in the amount of rangeland in excellent condition and decrease in the amount in poor condition. The generally good wildlife habitat will be slightly improved and wildlife viewing and hunting opportunities increased.

The major part of the proposed program is implementation of 276 new or revised allotment management plans (AMPs) and continuation of 42 existing AMPs. The AMPs include grazing systems and rangeland improvements such as fences and stockwater facilities. Before implementation, each AMP will be carefully re-evaluated to determine if reduced grazing in the spring, or pasture level stocking on rest rotation grazing systems will provide significant additional benefits to watershed and wildlife values.

AMPs which are outside of areas scheduled for intensive wilderness inventory, are not adjacent to the Charles M. Russell National Wildlife Refuge or the Upper Missouri Wild and Scenic River, and where soil/vegetation data are complete will receive the initial emphasis for implementation.

BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225

INTRODUCTION

Bureau of Land Management
Library
Denver Service Center

BACKGROUND

As a result of a 1973 lawsuit, BLM was ordered to prepare site-specific Environmental Statements (ES) for all livestock grazing activities on BLM administered lands. The Missouri Breaks Grazing Environmental Statement and this resulting rangeland management program document is a response to the agreement based on that lawsuit. The Missouri Breaks area was selected for Montana's first grazing ES because of the court-ordered agreement which considered the interrelationships between adjacent public lands and the Charles M. Russell National Wildlife Refuge. At the time of the court-ordered agreement, the BLM administered grazing on the refuge. This responsibility has since been transferred solely to the U.S. Fish and Wildlife Service. Therefore, refuge lands were not included in the environmental analysis.

Bison and other large ungulates undoubtedly had a major influence on the character of this area before livestock were introduced. In 1806, Lewis and Clark observed 20,000 bison feeding on an open plain near the Big Bend of the Missouri River. The bison overgrazed certain areas of the grasslands, but their wandering nature probably resulted in their leaving the area for "greener pastures," and not returning for an extended period of time. During this time, the range would recover. Thus, intense grazing, followed by rest, seems to have existed on the grasslands, prior to the introduction of livestock. Accelerated vegetation and soil damage began to occur in the late 1800's, shortly after the arrival of large numbers of uncontrolled livestock. Rangeland productivity continued to decline during the homestead days, when intense competition for forage, drought, and lack of incentive to manage the land prevailed.

During the past few decades, however, considerable progress has been made in bringing about orderly grazing use of the public lands. By the mid-1960's, initial grazing capacity information had been gathered and the apportionment of grazing privileges was completed in accordance with the provisions of the Taylor Grazing Act. This range adjudication process resulted in about a 15 percent reduction in livestock use. Permitted livestock use was closely balanced with available forage and management of livestock has since advanced rapidly. Thousands of acres of abandoned homestead cropland have been reclaimed by reseeding. Stockwaters and fences have been constructed to allow better livestock distribution within designated areas of use.

Even with moderate stocking by livestock and the construction of rangeland improvement projects, continued improvement on much of the native rangelands is restrained by inadequate livestock distribution and season-long use made by livestock year after year. However, natural maintenance and improvement of the range can be accomplished by timely resting of the range from livestock use, in much the same manner as buffalo once grazed the Plains. Thus, rangeland improvement can be accomplished through the implementation of grazing systems which include such rest through the distribution and control of livestock.

Nearly 26 percent of the 8,500,000 acres included in the environmental statement area are public lands. There are 52 existing allotment management plans (AMPs) in the ES area. Sixty-five percent of the acreage specifically proposed for allotment management plans is public land. Nearly 78 percent of the acreage proposed for AMPs is in good or excellent range condition, 21 percent is in fair range condition and one percent is estimated to be in poor condition. Over 90 percent of the same acreage is in moderate to stable erosion condition class, with nine percent in critical, and one percent in severe erosion condition class. The ES area supports a diversity of wildlife including mule and whitetailed deer, antelope, elk, sharptailed and sage grouse, pheasants, hungarian partridge, and a large variety of waterfowl. Vegetation in the ES area consists primarily of the various types of short and mid grasses typical of the Northern Great Plains mixed with sagebrush on the heavier soils, and woodlands in the rougher country of the "breaks" of the Missouri River and its tributaries and in the mountains. It is estimated that 30 to 40 percent of the total annual vegetation production has been allocated to livestock, with the remaining 60 to 70 percent available for other uses such as wildlife food or cover and watershed protection.

THE PROGRAM

A. What It Is

This Rangeland Management Program Document summarizes a decision to implement a more intensive rangeland management program. The program is essentially the same as that analyzed in the Missouri Breaks ES as the proposed action, with modifications based on measures to mitigate environmental impacts and incorporation of concepts contained in the analysis of alternatives.

This planned action was selected because an analysis of the environmental issues and response from the public did not surface any significant environmental impacts that had not already been considered. Measures will be taken to mitigate those environmental impacts that do occur. The selected action is responsive to the multiple use mandates under which BLM operates, takes into consideration the environmental consequences of various actions and comments provided on the ES, and meets identified resource objectives for the public lands.

The program will be implemented over a four year period. Cost of rangeland improvement projects will be about $4.1 million with additional salary costs of $2.6 million. Details of the program are shown in Table I. Livestock use adjustments included in allotment management plans are shown in Table II.

TABLE I
RANGELAND MANAGEMENT PROGRAM

	Number Allotments	Acres (BLM)	Livestock AUMs (BLM)
Intensive Management			
Existing AMPs (continued operation)	42	485,355	
Revision of existing AMPs	10	108,733	
Proposed new AMPs	266	1,377,947	
Total	318	1,972,035	291,502
Less Intensive Management (non-AMP Areas)	729	251,000	57,896
Unalloted to livestock	---	30,612	---
Totals	1,047	2,253,647	349,398

TABLE II
LIVESTOCK USE ADJUSTMENTS

	No. of Allotments	AUMs (BLM)	
Decreases	68	-4778	
Increases	27	+1942	
No Change	223	0	
NET ADJUSTMENT		-2836	-1%

Allotment management plans will include establishment of grazing systems (seasonal, deferred rotation, rest rotation, or a combination of one or more of these systems) and supporting rangeland improvements that are designed to meet identified resource objectives.

Several constraints will be placed on AMP implementation. They include:

1. Wilderness considerations will place a significant constraint on implementation of the program. One hundred twenty-eight of the 318 AMPs, are located in potential wilderness study areas. Of the 128 AMPs in potential wilderness study areas, 65 include rangeland improvement projects. Over half of the fencing and reservoirs and most of the vegetation manipulation proposed on public lands are included in these AMPs.
   AMPs requiring significant project construction or land treatment maintenance, necessitating the use of heavy equipment which may impair wilderness integrity, will not be implemented until identification of Wilderness Study Areas is complete (September 30, 1980). After Wilderness Study Areas are identified, implementation of AMPs will be based upon BLM's interim management guidelines for such areas.

2. Allotment management plans along the Charles M. Russell National Wildlife Refuge boundary will only be implemented after close coordination with the affected livestock operators and the U.S. Fish and Wildlife Service. Where specific resource objectives are compatible on the refuge and adjacent BLM lands, the BLM will work closely with the U.S. Fish and Wildlife Service and livestock operators to develope a pattern of use that best meets the objectives of all parties. The management plan for the refuge is scheduled for completion in mid-1980. When the refuge management plan is complete and specific management goals are identified by area on the refuge, cooperation between the two agencies can more fully occur. Implementation of 54 proposed AMPs (31 of which include rangeland improvement projects) will be affected by their relationship to the refuge.

3. Livestock grazing in specified high-use recreation sites along the Upper Missouri Wild and Scenic River will be controlled through fencing and/or selective grazing. An intensive inventory of these sites will be completed by September 30, 1980. No proposed AMPs will be implemented along the riverway until this inventory information has been evaluated by the affected BLM Area Manager and the inventory data used to determine the final AMP content. Eighteen proposed AMPs will be affected.

4. Measures to mitigate environmental impacts presented in the Missouri Breaks ES will be observed. This will include the use of an interdisciplinary team to review the location of all proposed projects and an inventory of riparian habitats to determine appropriate protection measures.

5. Each allotment management plan will be reevaluated prior to implementation to insure its applicability to current conditions (many AMPs were written 3 to 4 years ago), the soundness of the resource data upon which it was based (review of current range conditions, use and trend data), and the need to mitigate environmental impacts as outlined in the environmental statement.

6. Two concepts presented in the reduced level of livestock use alternative in the ES will be used in the finalization of AMPs. The 229 AMPs with grazing use proposed between March 1 and May 31, will be reviewed to determine if reduction or elimination of grazing during this period would contribute to substantially improved watershed and wildlife habitat conditions on a site-specific basis. Also, the 81 AMPs which include rest rotation grazing systems will be reevaluated to determine if "pasture level stocking" is appropriate, in accordance with BLM policy. In the first year after implementing a grazing system, stocking rates for allotments which have a downward trend in range condition, or that are in fair or poor condition, will be based upon:

   a. The grazing capacity of the pastures scheduled for use during the first year. At that time, it will be appropriate to evaluate the current livestock grazing capacity of each pasture to reflect previous management, i.e., a pasture scheduled for spring grazing could be voluntarily rested the previous year. The carryover forage that is suitable for livestock use could be included as part of the grazing capacity of that pasture for the first year; or

   b. A predetermined utilization rate (approximately 50 percent) of the key species in specific areas of the pastures to be used. When pastures are grazed to the predetermined utilization level, livestock will be removed.

      Stocking rates, based on the total allotment and tailored to the grazing management system, may be used in subsequent years, where the pasture scheduled for rest was rested and is available for use.

7. The need for vegetation modification will be reevaluated in all draft AMPs including such actions. However, past experience has shown that livestock management alone will not bring about desired vegetation changes on some sites. Alternative methods of vegetation manipulation will be investigated.

The planned action is considered the environmentally preferable alternative because it is generally beneficial for watershed, vegetation, wildlife, and recreation values, and minimizes the adverse social and economic impacts upon individual livestock operators. Other alternatives considered had either greater adverse impacts to natural values or significant adverse social and economic impacts upon the livestock industry.

All practicable means to avoid or minimize environmental harm will be taken. All mitigating measures or studies and monitoring programs presented in Chapter 4 of the Missouri Breaks Environmental Statement have been adopted as part of the planned action. Many of the mitigating measures adopted have already been discussed as constraints to AMP implementation. Additional mitigating measures or studies and monitoring programs are presented in the following section, entitled "Implementaton".

B. What it Does

The capability of the Missouri Breaks to respond favorably to more intensive rangeland management is substantial. The existing range condition (20 percent excellent, 58 percent good, 21 percent fair and 1 percent poor) indicates the overall opportunity for improvement. Improvement in range condition and a corresponding improvement in watershed condition will provide benefits for many other resources. The objective of the selected course of action is to manage the vegetation resource to improve or stabilize range conditions while:

a. Protecting watershed values through reduction of erosion and enhancement of water quality.
b. Providing livestock forage for dependent users.
c. Maintaining or enhancing wildlife habitat.
d. Safeguarding other environmental values.

Vegetation cover and litter will increase thereby reducing erosion and improving watershed conditions. Livestock distribution will be improved. Where grazing systems are implemented, desirable forage species will increase and vegetation vigor and reproduction will be improved. The allocation of annual vegetation production to livestock is estimated to be 30 percent in the rougher terrain of the Missouri Breaks area and 40 percent on the more rolling rangelands. The current allocation level will not change. Improved vegetation vigor and reproduction, increased forage production, and an improvement in the quality and quantity of riparian vegetation where grazing systems are established should lead to an overall slight increase in wildlife population numbers. The proposed range improvements will slightly reduce visual quality; however, recreational opportunities, primarily hunting, will be improved. Other benefit projects are shown in Table III.

TABLE III
SUMMARY OF PROJECTED BENEFITS

Component	Projection
Sediment yield	Reduced by approximately 186,000 tons annually (a 7 percent reduction)
AUMs (Livestock Forage)	Increased by 24,000 AUMs or 8 percent
Rangeland in excellent condition	Increased by 270,000 acres (a 45 percent increase)
Rangeland in poor condition	Decreased by 2,600 acres (a 7 percent decrease)
Personal income	Increased by $284,000 (a minor overall change)
Construction expenditure for rangeland improvement	Increase in local earnings of $1,532,000 (a significant short-term impact)

The economic and social impacts on the local area will not be significant. There will be a minor overall increase in personal income. The construction expenditures for the rangeland improvements will result in a more significant short term increase in income. The effect of the proposed program on the almost 400 livestock operators will not be major. It is estimated that three operators may experience difficulty in maintaining an economically viable operation.

THE ALTERNATIVES

The Missouri Breaks Grazing Environmental Statement analyzed a proposed action and four alternavies. The four alterntives considered were:

1. *No action;*
2. *Elimination of livestock grazing on public lands;*
3. *Reduced levels of livestock use; and*
4. *Livestock forage maximization.*

The following section briefly describes and evaluates each alternative.

No Action

The no action alternative assumes continuation of the present grazing management program. The existing level of livestock use would remain unchanged. No new range improvements would be constructed; however, existing range improvements would be maintained. This alternative assumes continued operation of the 52 existing AMPs and implementation of no new AMPs. It also assumes continued licensing of livestock use at present levels on all non-AMP allotments. In addition unalloted status on approximately 30,612 acres of public land would continue. Trespass control through range use supervision would continue. Present levels of manpower and funding would remain unchanged.

This alternative was not selected because it does not enhance range conditions, watershed values, or wildlife habitat. Existing AMPs in need of revision would not be revised and therefore resource conditions could deteriorate. Without more intensive grazing management, it is estimated that range conditions could decline slightly (5 percent) by the year 2000. Similar slight declines could occur in wildlife habitat and watershed condition.

Elimination of Livestock Grazing on Public Lands

This alternative assumes elimination of domestic livestock grazing on approximately 2,169,000 acres of public land. No new AMPs would be implemented, and all existing AMPs would be terminated. Because private and public lands are mixed throughout large portions of the ES area (only 26 percent of the ES area is public land), extensive fencing would be necessary to control livestock trespass on public lands. It is estimated that 8,900 miles of fence at a cost of at least $17,800,000 would be necessary to exclude livestock from public lands. The monitoring of public land use would become a major BLM workload. No range improvements would be maintained or constructed unless necessary for other resource programs such as wildlife or watershed.

This alternative was not selected because of the extreme adverse social and economic impact it would have on the local area. The necessary fencing could cause substantial problems with wildlife movement. The benefit to the vegetation resource could be significant in the short term. In the long run, however, vegetation production would decrease to below that for the proposed action. Benefits to watershed would not be significantly greater than those estimated for the proposed action.

Reduced Levels of Livestock Use

This alternative postulates a level of livestock use approximately 40 percent less than the level included in the proposed action and also 40 percent less than existing licensed use. Lower stocking levels for 308 of the 318 AMPs included in this alternative were based on four major factors: (a) elimination of grazing use between March 1 and May 31, (b) reduction of stocking levels for rest rotation grazing systems to the amount of forage in only the pastures used each year (i.e., the capacity of the rested pasture is not included when establishing allowable yearly grazing levels), (c) reduction of stocking levels based on the amount of acreage each allotment has in fair and poor range condition and/or severe and critical erosion condition, and (d) a reduction of stocking levels based on the amount and type of wildlife habitat in each allotment. Grazing management on non-AMP areas would remain unchanged. Rangeland improvements would be the same as those included in the proposed action. Approximately 30,612 acres of public land would continue in unalloted status. Reductions for individual AMPs range from 0 to 80 percent.

Two concepts included in this alternative were incorporated in the proposed action. All AMPs which include grazing use between March 1 and May 31 will be re-evaluated prior to implementation to determine if non-use or reduced use during this period would contribute to substantially improved watershed and wildlife habitat conditions. In addition all AMPs with a rest rotation grazing system will be re-evaluated to determine if "pasture level stocking" is appropriate. The re-evaluation of the AMPs based on these two factors could result in additional downward adjustments in livestock use. Other components of this alternative were not incorporated in the proposed action because of the substantial adverse social and economic impact they would have in the local area and because many of the factors (range and erosion condition and wildlife habitat) were considered in the development of the AMPs.

Livestock Forage Maximization

This alternative would provide for the development of livestock forage to its maximum potential by using vegetation manipulation practices — sagebrush spraying, mechanical treatment (contour furrowing, ripping, chiseling, plowing and seeding) and prescribed burning. The primary objectives would be to remove or suppress undesirable plant species and increase forage production and thus grazing capacity. All of the above actions would be in addition to those specified in the proposed action. Approximately 367,774 additional acres would be involved in vegetation manipulation with a potential increase of 55,252 additional AUMs (19 percent higher than the proposed action). The vegetation manipulation stipulated in this alternative would cost an additional $3,258,751.

This alternative was not selected because of its adverse impact on wildlife habitat, cultural resources, and visual resources. The use of vegetative manipulation to the degree included in this alternative was not justified on a multiple use basis.

COORDINATION AND PUBLIC INVOLVEMENT

Consultation and coordination with agencies, organizations, and individuals occurred in a variety of ways throughout the land use planning and ES preparation process. Update and revision of the existing land use plans for the ES area (ten Management Framework Plans, or MFPs) began in 1975. Resource data gathered in the concurrent development of allotment management plans was recycled into the resource data base used in the land use planning process. During this update process, federal, state, and local organizations were contacted for assistance. All public land users and other interested groups and individuals were notified through letters and news releases of the initiation of the planning system updates. In late 1977 and early 1978, public information meetings or open houses were held to present the multiple-use recommendations from the MFPs. Open houses were held in Havre, Malta, Glasgow, Lewistown, and Jordan. Discussion of the Missouri Breaks ES with interested parties occurred throughout the update process.

Preparation of allotment management plans for the ES area began in 1975. Nearly all livestock operators were contacted during preparation of draft allotment management plans and most were contacted after the drafts were complete. All AMPs were availble for review by livestock operators and public interest groups.

Public involvement throughout the integrated process of planning system updates and allotment management plan development stressed the close ties with the upcoming ES. Numerous meetings were held over the two and one-half year period with public agencies, service organizations, special interest groups, and private individuals to explain and solicit comments on the entire process.

A 52-day public comment period (March 9 to April 30, 1979) was provided on the draft environmental statement (DES) to allow for public review and comment on the adequacy of the environmental impact analysis for the proposed action and alternatives.

The DES was filed with the Environmental Protection Agency on March 9, 1979. A Notice of Availability was published in the March 19, 1979 issue of the Federal Register. The notice also announced public meetings in Havre, Malta, Lewistown, Jordan, and Glasgow during the week of April 2-6, 1979. After the DES was filed with the Environmental Protection Agency, copies of the document were mailed to nearly 50 federal, state, and local government agencies and to non-government organizations and individuals for review and comment. In addition, copies of the DES were sent to all livestock operators with existing, revised, or proposed allotment management plans. Nearly 750 copies of the DES were distributed. Copies of the DES were sent to all groups and individuals who requested them. Also, copies were available at the public libraries in Chinook, Malta, Fort Benton, Glasgow, Circle, Jordan, Winnett, Malta, Glasgow, Lewistown, and Miles City.

In addition to the Federal Register notice, a news release announcing the availability of the DES was issued on March 14, 1979, from the BLM Washington Office and the Montana State Office to the national news media and all Montana daily and weekly newspapers, television stations, and radio stations.

During the review process, 43 letters were received from federal, state, and local agencies; private organizations such as special interest groups; and interested citizens such as livestock operators. Comments from environmental organizations frequently criticized the balance between livestock use and wildlife needs on the public lands, suggesting that less emphasis be placed on livestock. All comments were carefully considered in development of the final environmental statement and selection of the recommended course of action. Responses were made to all comments which presented pertinent new information, questioned impact analysis or data, or raised issues bearing directly upon the impacts of implementation of the proposed action or alternatives.

Prior to release of this Rangeland Management Program Document, briefings on the decisions reached were provided to the Montana Congressional delegation and to selected interest groups. Re-evaluation of the AMPs will require close cooperation with the affected livestock operators. In addition, the content of this program document was reviewed with the U.S. Fish and Wildlife Service and the Montana Department of Fish, Wildlife and Parks.

IMPLEMENTATION

A. Administrative Action and Grazing Use Adjustments

Grazing administration will be consistent with the Grazing Administration and Trespass Regulations. Permits and leases will be issued by BLM to authorize use. Grazing use decisions will be issued according to the following schedule:

a. Decisions will first be issued for AMPs scheduled for implementation in Fiscal Year 1980 (October, 1979 through September, 1980). These decisions will be for the following allotments:

   –Allotments outside of potential wilderness study areas.
   –Allotments NOT adjacent to the CMR National Wildlife Refuge.
   –Allotments outside of the Upper Missouri Wild and Scenic River Corridor.
   –Allotments where additional soil/vegetation inventories are NOT necessary prior to AMP implementation.

The decisions will specify, for each allotment, whether the present situation will be maintained or adjustments made in the amount of grazing use. A decision may also require implementation of an AMP, changes in period-of-use, or changes in the kind of livestock. Decisions will be issued during 1980.

b. The remaining decisions, including non-AMP allotments, will be issued during 1981. These decisions will also specify amounts, times, and kinds of livestock use as well as whether or not an AMP will be implemented. If an AMP is planned for an allotment, it will be incorporated into the decision where compatible with wilderness, the Charles M. Russell National Wildlife Refuge, and the Upper Missouri Wild and Scenic River.

The level of livestock use identified in the proposed action is 349,498 AUMS in the area covered by the ES, which represents an overall reduction of one percent. Further use adjustments may be imposed as a result of reevaluation of spring use, pasture level stocking, and other pertinent information as the AMPs are developed in final form.

Downward adjustments may be scheduled over a five-year period to reduce impacts. Where the inadequacy of the grazing capacity data was recognized in the ES, additional data need to be gathered before grazing use decisions are issued. The AMPs included in the proposed action provide for reductions in livestock use on 68 allotments, increases on 27 allotments, and no change on 223 allotments.

Future adjustments will be consistent with the land use plans after consideration of actual use records, measurements of utilization, range condition and trend, variation in the weather, and other related data.

Most of the term permits and leases have already been issued for this area. Adjustments to these term permits and leases will be made as necessary.

B. Rangeland Improvements

Rangeland improvement projects are shown in Table IV.

TABLE IV
RANGELAND IMPROVEMENT PROJECTS

Type of Project	BLM	Operators	Total
Fence (miles)	472.3	78.7	551
Fence removal (miles)	21	21	42
Fence crossing (number)	23	---	23
Cattleguards (number)	38	3	41
Reservoirs (number)	423	13	436
Wells (number)	33	1	34
Springs (number)	18	7	25
Pipelines (miles)	59	1	60
Stocktanks (number)	60	14	74
Catchments (number)	24	1	25
Contour Furrowing (acres)	1,958	295	2,253
Sagebrush Spray (acres)	1,596	640	2,236
Plow and Seed (acres)	4,530	6,320	10,850

An interdisciplinary team including a wildlife biologist and a soil scientist will be involved in determining the location, time of construction, and construction stipulations for all rangeland improvement projects. Particular attention will be given to vegetation manipulation, fencing, and water developments. Sagebrush control is planned for approximately 2200 acres (less than 0.1 of 1 percent of the total AMP acreage) where serious soil erosion is occurring and site productivity is declining. A more protective ground cover is needed to protect the soil, a necessary base for all other resource values. Vegetation manipulation will be considered only after it has been determined that resource objectives cannot be obtained through grazing management. Vegetation treatment areas will be allowed to become firmly established with desirable species before grazing use is permitted. This will require one growing season of rest, as a minimum, and may require two or more growing seasons, depending on specific climatic and soil conditions. Fence projects will be evaluated on a case-by-case and cumulative basis to determine if they will affect critical wildlife habitat, impede animal migrations, or result in a loss of open space or other aesthetic values. The benefits of water development for better livestock distribution will be carefully weighed against the effect of such development on important wildlife habitat. Where conflicts are identified through interdisciplinary review, alternative methods for meeting the resource objectives in the AMP will be investigated. The interdisciplinary review may require deletion or modification of some of the rangeland improvement projects proposed.

Estimated current costs for the proposed rangeland improvement projects is 4.1 million dollars of which 3.6 million dollars will be funded by BLM. Implementation of AMPs will begin outside of special use areas (Upper Missouri Wild and Scenic corridor, potential wilderness study areas and allotments which adjoin the CMR National Wildlife Refuge) in FY80 and continue over a four-year period. During this four year period, specific project clearance appears favorable for the construction of approximately 152 miles of fence, 116 stockwater reservoirs, 21 wells, 11 springs, 19 miles of water pipeline, 25 stock tanks and 11 rainwater catchments. Additional project work is expected for allotments inside the special use areas where compatible.

C. Related Actions

1. Islands and/or waterfowl rafts will be constructed on new reservoirs and existing reservoirs (where possible) on which the BLM resource area wildlife biologist determines such structures lead to greater reproductive success for ducks or geese. While water developments associated with grazing systems generally benefit waterfowl, the removal of residual vegetation by grazing and the trampling of nests often reduce those benefits. This measure would allow waterfowl to better take advantage of the benefits of reservoir construction.

2. Because a band of approximately 30 horses of unknown status (wild or trespass) were not claimed during the period of August 15 to November 15, 1973, they will be considered as wild free-roaming horses. Any branded animals will be removed when, and if, excess animals are gathered at some future date. BLM policy is that any horse or burro on the public lands not claimed is considered wild and free-roaming until captured, inspected, and found to be branded.

3. Riparian habitats will be inventoried and their importance to wildlife evaluated in each resource area by the end of 1981. Through the BLM land use planning process, the more important of such habitats will be identified and recommendations made. AMP revisions will then be made to protect those areas from grazing in accordance with the MFP.

4. The Rangeland Management Program will be coordinated and/or integrated with the following Habitat Management Plans (HMP):

   a. Little Bear Lake HMP — The objectives of this HMP is to improve the quality and quantity of waterfowl populations and habitat on a lake area of approximately 120 acres. The HMP was approved in 1975. One proposed allotment management plan, Little Bear No. 5018, encompasses the entire HMP area. Portions of Little Bear Lake have been fenced from livestock and the proposed AMP will not change the waterfowl management emphasis placed on the HMP area.

   b. Yellow Water HMP — This habitat management plan emphasizes the management of antelope and sage grouse in an area of mixed public and private ownership of over 170,000 acres. The plan was approved in 1971 and has largely been implemented. There are two existing, one revised, and eight proposed allotment management plans in the HMP area. The development of the allotment management plans was coordinated closely with the objectives of the HMP. No vegetation manipulation is included in the rangeland management program and fencing will be kept to a minimum (19.1 miles).

   c. Prairie Dog Ecosytems HMP — This HMP was released in draft form in September, 1979 and is expected to be finalized by the end of 1979. Implementation is scheduled to begin in 1980. The HMP establishes a plan for managing major wildlife species associated with the prairie dog ecosystem on all BLM administered public lands in Montana. Because prairie dogs compete with livestock for forage in some areas, careful coordination will occur between AMP implementation and specific prairie dog-related programs which are identified by the studies included in the HMP.

D. Appropriations

Development of rangeland improvement facilities and grazing management systems is funded through appropriations from Congress and by monies collected from licensed grazing use.

Availability of personnel and funding for the rangeland management program is critical for timely implementation of the planned rangeland management program. A limitation on implementation will be both project development funds and an adequate increase in personnel to lay out the project work, administer construction contracts, and supervise and monitor the AMPs. If the funding needed is not appropriated as expected, the schedules discussed in this document will be affected and the program will be implemented as funding allows.

E. Monitoring

A monitoring program will be established to evaluate the effectiveness of the range management program. A number of scientific studies will be conducted to gather pertinent data. Effects of the various management practices on vegetation, wildlife habitat, watershed conditions and the aquatic environment can be monitored through the studies. The monitoring will be implemented immediately and will continue as an ongoing program. Listed below are the major monitoring actions that will be initiated.

1. Livestock and Vegetation

Actual use records will be maintained on livestock numbers and dates of use. Range use supervision will be intensified to assure use in accordance with authorization. Livestock habits with respect to riparian areas and the effectiveness of grazing systems will also be evaluated. Forage utilization checks will be made to measure the intensity of grazing. Range condition and trend studies will be initiated. Information on plant development of key species will be gathered and analyzed to determine range readiness. Climatological data will be gathered for use in analyzing range trend and condition studies.

2. Terrestrial Wildlife

Studies will be located in crucial wildlife habitat to measure the effect of the livestock grazing program on these areas. In addition, studies will be undertaken in conjunction with ongoing rangeland studies to determine trends for identified threatened or endangered animal and plant species.

Riparian habitats will be inventories and their importance to wildlife evaluated within two years. The more important of such habitats will be identified and recommendations made for additional protection if necessary.

3. Watershed Condition and the Aquatic Environment

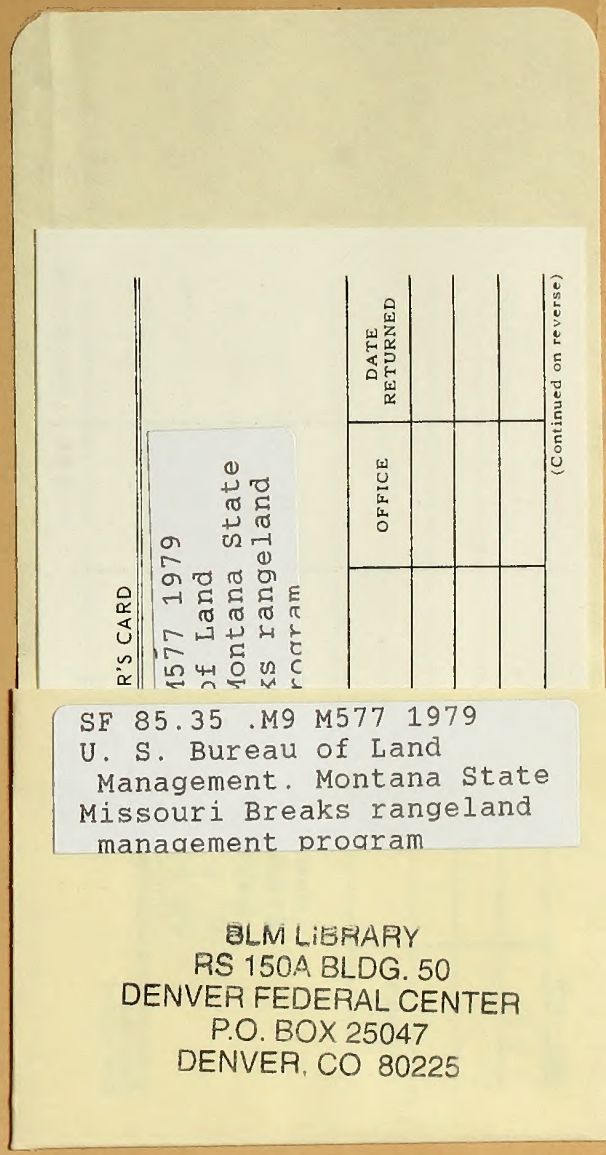
Partial record gaging stations will be established to measure stream flow and peak runoff in order to determine the effect of the program on water yield. Sediment yield will be monitored through water quality studies at each gaging station and by reservoir sediment surveys. Chemical and bacteriological water quality will also be monitored at the stations. The aquatic environment will be monitored by stream channel stability evaluations and by stream and lake water quality analysis.

F. Future Adjustments

The AMPs will be reviewed and evaluated periodically based on the studies program. Following the evaluation, AMPs may require modification of the grazing management system and/or livestock use authorized.

BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225

Bureau of Land Management
Library
Denver Service Center



SF 85.35 .M9 M577 1979
U. S. Bureau of Land
Management. Montana State
Missouri Breaks rangeland
management program

BLM LIBRARY
RS 150A BLDG. 50
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225